Appl. No. 10/750,428   PA094-US
Amdt. Dated February 3, 2005   Customer No. 27405
Reply to Final Office Action of December 3, 2004

REMARKS/ARGUMENTS:

Claims 1 and 14 are amended. Claims 1-28 are pending in the application. Support for the amendments to claims 1 and 14 can be found at page 67, lines 21-23 of the Applicant's specification. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Claim Rejection Under 35 U.S.C. 103:

Claims 1-5, 8, 9, 11-15, and 17-28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over either Gilcher et al. or Natwick et al., and further in view of Kline-Schoder et al. The Applicant respectfully traverses this rejection.

Claim 1, as amended, is as follows:

A system for evaluating or calibrating a bubble detector, comprising:

a conduit adapted to pass a flow material therethrough;

a pump operatively coupled to the conduit to pump the flow material through the conduit;

a bubble-forming device operatively coupled to the conduit, the bubble-forming device being adapted to introduce bubbles into the flow material passing through the conduit; and

a bubble detector to be evaluated positioned to examine the bubbles in the flow material passing through the conduit, wherein the flow material is capable of having plurality of material viscosities.

Applicant respectfully submits that the cited references cannot render claim 1 obvious because the cited references fail to teach or suggest a system that has both a bubble-forming device and a bubble detector to be evaluated positioned to examine the bubbles in the flow material passing through the conduit, wherein the flow material is capable of having plurality of material viscosities.

The Examiner states,

"As to page 8, last paragraph; Kline teaches a system that will produce bubbles having a particular size and number for testing. (Please see col. 16, lines

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3-15.) It would not appear to be all that important whether Kline is water or otherwise, as bubble size is bubble size."

The Applicant respectfully disagrees as to the Examiner's assertion that the type of liquid is not important. However, the Examiner apparently agrees that Kline fails to teach or suggest a liquid other than water. Consequently, claim 1 was amended to clarify that the flow material is capable of having plurality of material viscosities.

Flow materials of varying viscosity may be utilized and may include newtonian or non-newtonian fluids. It is the discovery of the present invention that the flow material to be evaluated be comparable with the viscosity of the material utilized in the operational environment, e.g., blood mixed with gas-enriched physiologic fluid. (Applicant's specification, at page 68, lines 6-18). On the other hand, as noted by the Examiner, Kline-Schoder is limited to a water environment. Accordingly, bubbles are produced by directing compressed air through a glass tube in a water tank. (Kline-Schoder, column 15, line 56-column 16, line12; Figure 13). Therefore, the simulation of operational environments made possible with the present invention would not be able to occur, since Kline-Schoder lacks the flexibility to accommodate different flow materials.

In light of the foregoing, Applicant respectfully submits that the cited references could not have made claim 1 obvious, because the combination of references fails to teach or suggest each and every claim limitation.

Claims 2-5, 8, 9, and 11-13 depend from claim 1 and cannot be made obvious for at least the same reasons as claim 1. Withdrawal of this rejection is thus respectfully requested.

Claim 14, as amended, is as follows:

A method of evaluating or calibrating a bubble detector comprising the acts of:

(a)   pumping a flow material through a conduit;

(b)   introducing bubbles into the flow material;

(c)   examining the bubbles in the flow material with a bubble detector under evaluation; and

(d)   detecting the bubbles in the flow material, wherein the flow material is capable of having plurality of material viscosities.

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Claim 14 was similarly amended to clarify that the flow material is capable of having plurality of material viscosities. Consequently, claim 14 and its dependant claims 15 and 17-28 are patentable over the cited references for the reasons discussed above. Withdrawal of this rejection is thus respectfully requested.

Claims 6, 7, 10, and 16 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. The Applicant respectfully submits that since each of these claims depends from a claim that is believed to be patentable, claims 6, 7, 10, and 16 are believed to be patentable in their current form. Withdrawal of these objections is thus respectfully requested.

Applicant believes the foregoing amendments comply with requirements of form and thus may be admitted under 37 C.F.R. § 1.116(b). In addition, admission is requested under 37 C.F.R. § 1.116(b) as presenting rejected claims in better form for consideration on appeal.
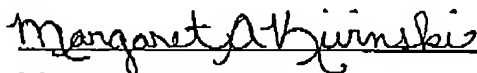
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1769.

Respectfully submitted,

Date: February 3, 2005

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